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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/928,373 | 08/14/2001 | Nobuhiro Mishima | 018987-035 | 6424 |
| 7590 | 07/15/2004 | | EXAMINER | |
| Platon N. Mandros BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404 | | | BAYAT, ALI | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2625 | |
| | | | DATE MAILED: 07/15/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/928,373 | MISHIMA, NOBUHIRO | |
| | Examiner | Art Unit | |
| | Ali Bayat | 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 15 is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 August 1401 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (U.S. 6,437,792) in view of Katayama et al. (U.S. 5,909,505).

In regard to claim 1 Ito provides for a data converting unit for converting color data that is contained in image data (Fig.28 step 31, col.19 lines 12-32), into converted color data (Fig.28 step 32) that corresponds to a difference from a reference color (col.22 lines 29-50, note the colorimetric area may absolutely be set using the parameter K or may be set in relation to the printer and monitor color gamuts taken as a reference); Ito does not provide expressly for a coding unit for performing entropy coding on converted image data in which the color data has been converted by the data converting unit . Katayama provides for a coding unit for performing entropy coding on converted image data in which the color data has been converted by the data-converting unit (Fig.11A element 218, col.11 lines 60-65). The prior art of Ito and Katayama are combinable because they are from the same field of endeavor (color conversion). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Katayama with the system and method of Ito. Because the invention of Katayama provides for maintaining high image quality, and performing image encoding with high efficiency col.2 lines 20-23.

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With regard to claims 2 and 10, Ito provides for the image data is made up of the color data (Fig.28 step 32, note a*, b*), and image data coding device further comprises a color space converting unit for converting original image data (Fig.28 step 31, note RGB) that is made up of a plurality of color components (Fig.28 step 31, note RGB), into the image data (Fig.28 step 32, not L*a*b*).

As to claim 3. See claim 2 above. It recites similar limitations as claim 2. Hence it is similarly analyzed and rejected.

In regard to claims 4 and 11 Ito provides for a image data coding device, wherein the data converting unit includes a determining unit for determining the reference color using the color data that has yet to be converted (col.7 line 55-col.8 line 3).

With regard to claims 5 and 12, Ito provides for an image data coding device, wherein the reference color is an achromatic color (col.7, lines 55-60).

As to claims 6-7 see claim 1 above. They recite similar limitations as claim 1. Except for the coding unit, which generates bit planes for the converted color data that has been converted by the data converting unit, by dividing bits of pixels showing the converted color data in such a manner that each bit plane is composed of values of bits at a different bit position (Fig.2 col.2 lines 46-54). Hence they are similarly analyzed and rejected.

With regard to claims 8 and 9. See claim 1 above. They recite similar limitations as claim 1. Hence they are similarly analyzed and rejected.

In regard to claim 13. See claim 1 above. It recites similar limitations as claim 1. Except for a storage medium (Fig.27 element 13). Hence it is similarly analyzed and rejected.

As to claim 14. See claim 1 above. It recites similar limitations as claim 1. Except for a program that can be operated on a processor (col.6 lines 48-53). Hence it is similarly analyzed and rejected.

Allowable Subject Matter

2. Claim 15 is allowed.

The following is an examiner's statement of reasons for allowance: the prior art of Ito in combination with Katayama provides for limitations in claims (1,8-9 and 13-14), **but failed to teach or suggest for a difference between a condition of the color data and a condition of data for a reference color corresponds to a difference between a color expressed by the color data and the reference color, the condition of the data for the reference color being set at maximum or minimum at least in a predetermined range including the reference color.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other Cited References

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US pub. No 2003/0043905 to Nakayama et al. is cited for image processing method and apparatus computer program and storage medium.

US patent 6,160,912 to Usami is cited for method of correcting color conversion data with accuracy.

US patent to Kimura et al. is cited for apparatus for image coding and decoding based on color components in an image signal.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is 703-306-5915.

The examiner can normally be reached on M-Thur 9:00-7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-3085246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ali Bayat

Art Unit: 2625

Patent examiner
Group Art Unit 2625
7/12/04

BD

Bhavesh Mehta

**BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
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